

Title: Program Director for Infrastructure and Information Systems Program,
AD-800-4 (ENG/CMS) (Open Until Filled)
Date: July 13, 2001

Dear Colleague:

The Civil and Mechanical Systems (CMS) Division within the Directorate for Engineering (ENG) at the National Science Foundation (NSF) announces a nationwide search for engineering professionals to fill the following position: Program Director - Infrastructure and Information Systems (IIS) program. This position will focus primarily on the Information Technology and Infrastructure Systems (ITIS) program element as described at http://www.eng.nsf.gov/cms/About_CMS/IIS/iis.htm.

The Infrastructure and Information Systems (IIS) program supports research for the development and deployment of advanced information systems and technologies required to sustain the nation's civil infrastructure. IIS research impacts on infrastructure system design, construction, maintenance, operation and control as well as infrastructure interdependencies. The domain areas for IT application encompass construction, network and transport systems, infrastructure systems subject to risks, uncertainties, environmental loads, and extreme events.

Supporting technologies include: networking; sensor and monitoring systems including distributed and remote wireless micro-devices with built-in sensors and processors for managing infrastructure systems and networks; voice and data communications; internet-based database and warehouse systems; visualization; GIS-based multimedia global infrastructure information systems; and high performance computing.

The IIS program portfolio focuses on systems and network approaches to infrastructure management, including:

- integrated systems behavior and network modeling, simulation, and optimization;
- holistic approaches to hazard management integrating monitoring, mitigation, preparedness and response;
- societal, environmental, safety, and economic metrics and performance assessment of infrastructure systems;
- decision and game theoretic methods for infrastructure systems management;
- intelligent systems and engineering (life-cycle design);
- complex adaptive system modeling; and
- conceptual and theoretical bases of scalable enterprise for the provision of services in and the management of civil infrastructure systems.

This position is open until filled. While disciplinary expertise will be expected, the focus of the search is to identify a scholarly, mentoring and open-minded person to join the present diverse and intellectually integrated team in sharing ENG's responsibilities within NSF's overall mission. In the words of NSF Director Dr. Rita Colwell, "It is our [NSF's] job to keep all fields of science and engineering focused on the furthest frontier, to recognize and nurture emerging fields, to support the work of those with the most insightful reach, and to prepare coming generations of scientific talent."

NSF Program Directors are responsible for providing stewardship of integrated research and education both in a discipline and across disciplines within the context of agency vision, mission,

and goals, and within the framework of guiding legislation and agency policies and resources. The position requires a Ph.D. with a minimum of six years of academic, government, or industry experience. All appointees are expected to function both within specific program boundaries, as well as in a team mode, contributing to and coordinating with virtual organizations in the Directorate, across the Foundation, and with other Federal and State government agencies and private-sector organizations as necessary. Periodic appointments to leadership positions of interdivisional, interdirectorate and interagency programs may be made. We are particularly interested in attracting women and under-represented minority candidates to this position.

Program Director appointments may be on a temporary basis in the Federal Service, or by temporary assignment as a Visiting scientist/Engineer on leave of absence from a research and/or education institution. For these positions, the Federal salary ranges up to \$116,414 for a Program Director position. The salary for these appointments will be based on the level of responsibilities, candidate's present salary, and related factors. Appointment alternatively can be as a temporary assignment under provisions of the Intergovernmental Personnel Assignment (IPA) Act. IPA assignees from academe will retain their university salary and benefits, with cost sharing negotiated between the Foundation and the home institution. Program Director appointees can arrange to make research- supervision visits to their institutions.

In addition to addressing current openings, our intention is to develop a candidate pool for future consideration as other openings at the Program Director level become available in CMS. These needs, as well as those in other ENG divisions, are detailed and updated regularly on the NSF website: <http://www.eng.nsf.gov/jobopportunities/>. We ask your assistance in conveying this information to those of your colleagues who have a compelling interest in the opportunities facing engineering education and research, would make a strong contribution to the work of the Division, and could meet the stimulating challenges of an appointment with the Foundation.

Inquires, applications and nominations should be sent by electronic means to the CMS Division Search Coordinator.

Sincerely,

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Dr. Jorn Larsen-Basse, Program Director and CMS Division Search

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